



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,114	06/02/2005	Jill MacDonald Boyce	PU020487	8217
24498 7590 09/09/2010 Robert D. Shedd, Patent Operations THOMSON Licensing LLC P.O. Box 5312 Princeton, NJ 08543-5312				
EXAMINER				
LEE, Y YOUNG				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
09/09/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,114

Applicant(s)

BOYCE, JILL MACDONALD

Examiner

Y. Lee

Art Unit

2621

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-6 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 3/15/10. These drawings are acceptable.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-6, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Katto (5,602,593).

AAPA, in Figure1, discloses substantially the same video encoder for encoding video signal data for at least one cross-fade picture disposed temporally between a fade-out start picture and a fade-in end picture, which are used as reference pictures for coding the at least one cross-fade picture as specified in claims 1, 4-6, and 26-28 of the present invention, the encoder comprising a reference picture store 170 for storing each of the fade-out start picture and the fade-in end picture; and a motion compensation unit 190 in signal communication with the reference picture store 170 for receiving at least one of the fade-out start picture and the fade-in end picture from the reference picture store 170 and providing at least one of a motion compensated fade-out start picture and a motion compensated fade-in end picture for coding the at least one cross-fade picture.

Although AAPA discloses the conventional video encoder applicable to cross-fade processing, it is noted AAPA differs from the present invention in that it fails to particularly

disclose direct signal communication among the cross-fade elements as specified in claims 1, 4-6, and 26-28. Katto however, in Figures 2 and 3, illustrates the concept of such well known signal connections among the picture weighting devices comprising a reference picture weighting applicator 16; a reference picture weighting factor unit (e.g. elements 13, 37, and 40) in signal communication with the reference picture store 38 and the reference picture weighting applicator 16 for receiving the pictures from the reference picture store 38, and selecting weighting factors 13 corresponding to each of the picture to supply to the reference picture weighting applicator 16 for coding the at least one cross-fade picture (e.g. overlapped pictures).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having both the references of AAPA and Katto before him/her, to incorporate the reference picture weighting technique as taught by Katto in the video encoder of AAPA in order to achieve overlapped motion compensation with a high prediction efficiency and a reduced prediction error.

With respect to claims 4-6 and 26-28, Katto also teaches the reference picture weighting applicator 16 applies a weighting factor selected by the reference picture weighting factor unit 40 to at least one of the motion compensated picture 39; prediction means 22 for forming first and second predictors from the weighted and motion compensated pictures; wherein the weighted and motion compensated pictures are each from opposite directions relative to all of the at least one cross-fade pictures (e.g. Fig. 1); a single video encoder (e.g. Fig. 2) is used to code the at least one picture; wherein the reference picture weighting applicator comprises a shift register 16; and the reference picture weighting applicator 16 is configured in an in-loop configuration within the video encoder (e.g. Fig. 3).

Response to Arguments

4. Applicant's arguments with respect to claims 1, 4-6, and 26-28 have been considered but are moot in view of the new ground(s) of rejection.
5. Applicant's arguments filed 8/12/10 have been fully considered but they are not persuasive. Applicant asserts on pages 6-7 of the Remarks that Katto fails to teach a shift register. However, applicant's admitted prior art, as stated in [0035] of applicant's own specification, discloses that a multiplier and a shift register are equivalent examples that may be implemented as a weighting applicator. Therefore, one of ordinary skill in the art would have had no difficulty in recognizing that these alternative arrangements provide no patentable significance since the multiplication process in any computer is performed by shifting digits using a register.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (571) 272-7334. The examiner can normally be reached on (571) 272-7334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Young Lee/
Primary Examiner
Art Unit 2621

yl